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Appl. No.: 10/528,672

Amdt. Dated September 29, 2006

Response to Office Action Mailed May 30, 2006

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in this application.

1. (Currently Amended) A device for producing a gas-liquid mixture in the vicinity of cutting tools arranged on at least one cutter head (10) or cutter drum rotationally mounted on a cutter arm (5) of a cutting machine (1), comprising

at least one nozzle pair comprised of a nozzle (14) for ejecting a gas jet and a nozzle (13) for ejecting a liquid jet,

axes (17, 18) of the nozzles (13, 14) of a nozzle pair being oriented in a manner that the jets impinge on each other at a distance from outlet openings of said nozzles (13, 14), wherein

the axes (17, 18) of the nozzles (13, 14) of a nozzle pair form an angle with each other of between 45° and 135°,

a crossing point of the axes (17, 18) of the nozzles (13, 14) of a nozzle pair is located at a distance of less than 100 mm from the outlet opening of the gas nozzle (14), and

outlet angles of liquid nozzles (13) amount to between 5° and 10°.

2. (Cancelled).

3. (Cancelled).

4. (Previously Presented) The device according to claim 1, wherein liquid nozzles (13) are designed as circular section jet nozzles whose outlet openings have diameters of about 1 mm.

5. (Previously Presented) The device according to claim 1, wherein diameters of the outlet openings of the gas nozzles (14) are at least 3 mm.

6. (Previously Presented) The device according to claim 1, wherein the gas nozzles (14) are configured to comprise a whirl chamber arranged upstream of said outlet opening to generate turbulent flows.

7. (Previously Presented) The device according to claim 1, wherein the gas nozzles (14) are designed for a gas supply pressure of 0.6 to 1.5 bar and the liquid nozzles (13) are designed for a liquid supply pressure of 4 to 5 bar.

8. (Previously Presented) The device according to claim 1, wherein the axes (18) of the gas nozzles (14) are arranged to be directed onto the cutting tools.

9. (Previously Presented) The device according to claim 1, wherein a plurality of nozzle pairs are arranged on a nozzle assembly (12) connected with the cutter arm (5) and extending parallel with an axis of rotation (8) of the cutter head (10).

10. (Previously Presented) The device according to claim 1, wherein distance between neighboring nozzle pairs is less than 150 mm.

11. (Previously Presented) The device according to claim 9, wherein the nozzles (13, 14) are pivotally mounted in the nozzle assembly (12).

12. (Previously Presented) The device according to claim 1, wherein the cutting tools are chisels.

13. (Previously Presented) The device according to claim 1, wherein the axes (17, 18) of the nozzles (13, 14) of a nozzle pair form an angle with each other of between 75° and 85°.

14. (Previously Presented) The device according to claim 1, wherein a crossing point of the axes (17, 18) of the nozzles (13, 14) of a nozzle pair is located at a distance of less than 50 mm from the outlet opening of the gas nozzle (14).

15. (Previously Presented) The device according to claim 1, wherein a crossing point of the axes (17, 18) of the nozzles (13, 14) of a nozzle pair is located at a distance of about 8 mm from the outlet opening of the gas nozzle (14).

16. (Previously Presented) The device according to claim 1, wherein diameters of the outlet openings of the gas nozzles (14) are about 5 mm.

17. (Previously Presented) The device according to claim 12, wherein the axes (18) of the gas nozzles (14) are arranged to be directed onto tips of the chisels.

18-20. (Cancelled).